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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,275	11/08/2001	Alain Yang	213399US0	5056

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EXAMINER	
SINGH, ARTI R	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/986,275	YANG ET AL.
	Examiner	Art Unit
	Ms. Arti Singh	1771

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *16 April 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *-5 and 7-30* is/are pending in the application.

4a) Of the above claim(s) *11-24* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5, 7-10 and 25-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 6/2004
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The Examiner has carefully considered Applicant's amendments and accompanying remarks filed on 04/16/04. The amendments to the claims have been entered. The status of the claims are as follows; Claims 1-5, 7-10 and 25-30 are directed to the article and are the claims currently under prosecution; claims 11-24 are withdrawn, and claim 6 cancelled. Claim 1 has been amended and new claims 25-30 have been added. The previously made art rejection has been overcome by Applicant's arguments during the interview and subsequent response; the double patenting rejection has also been withdrawn as Application 09/858471 went abandoned on 03/29/04. Despite these advances, the current amendments are not found to patentable distinguish the claims to be novel. A final rejection (necessitated by amendment) is as follows:

Response to Arguments

2. Applicant's arguments filed on 04/16/04 have been fully considered and with the withdrawal of two of the rejections those traversals are now moot. The only traversal left is that of the restriction and the desire to rejoin claims 11-24. To this the Examiner contends that there is more than one way of dispersing a particle into a nonwoven. It can be sprayed on during fabric formation, it may be coated on in one of the various post processing steps or it could be dispersed into the air while the fibers are being formed. Thus, the Examiner has established at least three different ways in which a particle may be dispersed while making the final composite. Therefore, the requirement is deemed proper and made FINAL. This application contains claims 11-24 drawn to an invention nonelected with traverse in the reply filed on 04/16/04. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 29 and 30 recites the broad recitation or a limitation outside the claimed range of independent claim 1 (which is currently 3 to 5μm). The lower end point in these claims desire a range outside that stated in the independent claim, that is 2 μm does not fall into the range of 3 to 5 μm.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, 4, 5, 7, 8, 10, 25, 26 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 97/20780 issued to Clausen et al. The WO 97/20780 patent teaches a fire and high temperature protection product comprising an air laid web of mineral fibers through which is substantially uniformly distributed a particle endothermic material which has a mean particle size above 5μm. and is bonded to the mineral fibers of the web and is a material which is a carbonate and/or hydrate (abstract). On page 3, line 11 - page 4, line 32, the instant patent teaches that a variety of particle may be used, one being calcium carbonate. The fibers that are used to form the batt (fill) or web may be mineral fibers such as rock, glass, stone, or slag (page 8, line 35-36). It is preferred that a binder be used in the composite (page 6), and any well-known and widely used binder may be employed. Other additives such as dispersion stabilizers are used (page 7, lines 28 onwards) such as clay, thereby meeting Applicant's limitation in claim 28. Also, the limitations of claim 5 (percentage of particle-carbonate to the product), are met by the first two paragraphs on page 7. it should be noted that with regard to claim 10, the wave length desired would be an inherent property of the carbonate that is used, and since both Patentee and Applicant are using the same this limitation is also anticipated by this reference.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 3, 9 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 97/20780 issued to Clausen et al. WO 97/20780 teaches what is set forth above but does not

explicitly suggest the use of recycled newspapers as composition of the batt/fill; or that the binder or additive is mineral oil, or that the loose fill is in the form of a flake, powder, granules or nodules.

With regard to using recycled newspaper as the fill, the Examiner takes the position that a person having ordinary skill in the art at the time the invention was made would have found it obvious to have employed recycled newspaper as the fiber medium in the composite of Clausen et al. one would have been motivated to do this as it would be the most economical choice as it is readily available and cheap if not free to purchase. Further using what is well known in the art of fire insulation would also render the use if recycled paper obvious.

With regard to the limitation of mineral oil being dispersed in the fill, the Examiner takes the position that since Patent teaches the use of additives and binders that are well known, and since Patentee is using mineral fibers, it would have been obvious to a skilled artisan to use mineral oil, motivated by the shear fact that mineral oil would be chemically compatible with mineral fibers and the bonding process would be perhaps quicker and more effective.

9. With regard to the limitations of the fill being in the form of a flake, powder, granules or nodules, to this the Examiner contends that a fill may be in the form of fibers or any of the forms desired in the limitation of claim 27, and can be used interchangeably. Support for such a presumption can be also be seen in the classification of class 428/357 which lists all of the forms to be found in a single subclass. Hence it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have employed a fill to be in the shape of a flake, powder, granules or nodules. One would have been motivated to do this

since such a modification would only involve a mere change in the size of a component. So if you want a more compact composite using a powder would get the job done.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ms. Arti Singh whose telephone number is 571-272-1483. The examiner can normally be reached on M-F 9-7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ms. Arti Singh
Primary Examiner
Art Unit 1771

07/12/04